REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated July 17, 2007. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 8 and 12-16 are under consideration in this application. Claims 9-11 are being cancelled without prejudice or disclaimer. Claims 8 and 12-13 are being amended to more particularly point out and distinctly claim the subject invention. Claims 14-16 are being added. The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 8-13 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. As known to one skilled in the art, a data center is a facility used to house mission critical computer systems and associated components, and as shown in Fig. 1, the user's facility has at least one computer. Claim 8 is being amended to recite that each of the data center and the user's facility has at least one computer to provide machines to overcome the 101 rejection. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejection

Claims 8-13 were recited under 35 U.S.C. § 103(a) as being unpatentable over Vanska et al. (US 6,654,755) in view of Chin et al. (US 6,470,277). This rejection has been carefully considered, but is most respectfully traversed.

The data search system of the invention (for example, the embodiment depicted in Figs. 1 & 10; pp. 8-11), as recited in claim 8, comprises a data center 13 for gathering data from a

plurality of biological information databases 11 and for distributing data and a user's facility 17 for receiving the data distributed from the data center 13 to use the data for a data search.

The data center 13 including at least one computer comprises: means for downloading data from a plurality of biological information databases 11 ("Unigene, Nucleotide(mRNA), SWISS-POT, etc" in Fig. 13); means for generating link information (e.g., Fig. 4; 15 in Fig. 1 or 101 in Fig. 10) which shows how the plurality of biological information databases A, B, C, D, E, etc. in Fig. 6 are associated by extracting information on how a data entry in a database associates with another data entry in another database from the downloaded data; means for generating detailed information (Fig. 3, 92 in Fig. 9; 103 in Fig. 10) by extracting an ID 93 (e.g., "AC090485" in Fig. 9) of a data entry and an explanation of the data entry 94 (e.g., "Genomic Sequence for Oryza stava, Nippon strain, clone OSJNa0067N01, from chromosome 3, complete sequence." in Fig. 9) from each data entry in the downloaded data; means for generating data for homology search (82 in Fig. 8; 106 in Fig. 10) by extracting the ID 83 (e.g., "AC090485" in Fig. 8) and sequence data 84 (e.g., "MENGNL----" in Fig. 8) of the data entry from each data entry in the downloaded data; a route table (Fig. 5; 110 in Fig. 10) in which information of permitted routes among the biological information databases is stored; and means for distributing to the user's facility the link information, the detailed information of said each data entry, the data for homology search, and the route table.

The user's facility includes at least one computer which comprises: means for conducting the data search using the link information, the detailed information of said each data entry, the data for homology search, and the route table distributed from the data center.

The route table stores the data search rule which restricts searches only along links following an origin of said data of interest as defined therein (p. 11, 2nd paragraph). For example, databases 61 and 63 correspond to each other as indicated by a link 62 connecting therebetween, assuming that a database 61 was recently created based upon the data stored in the database 63. Only such link information that follows the origin of the data (63 -> 61) of interest is utilized to search the data B in the database 63 linked from data A database 61. As another example, as the data of origin of D3 flows from C1 which in turn flows from A1. The data search follows from databases A-> C-> D ("*As a result, gene data D3 in the database D that corresponds to gene data A1 in the database A can be acquired.*"), but not to database B. The database B is relevant

only to database D since the data origin relationships between B1 <-> D1 and B2 <-> D2 (p. 11, last paragraph; Fig. 7)

The data center 13 accesses public databases to create index information including link information, detailed description information, data for homology searching, etc. to send to the user's facility the index information together with a route table storing suitable search orders of the databases. The user's facility 17 utilizes the index information and the route table sent from the data center 13 to conduct the data search (Fig. 1). According to the present invention, the user's facility 17 does not need to access the public databases directly to conduct the data search as shown in Fig. 21. Therefore, the problems related to a data collecting time, a network occupation, and disconnection of a network line and so on can be solved. In addition, the data search is carried out in the proper order based on the search order stored in the route table, the search speed and the search accuracy can be increased. As such, users can eliminate troublesome tasks such as putting unnecessary data in order by themselves. Most importantly, "by *limiting the link between the databases, the acquisition of unwanted data that produces noise, as described with reference to Fig. 22, can be limited, so that only appropriate data can be acquired* (p. 11, last 2 lines)", according to the present invention.

In contrast, Vanska only involves, for example, a "personal interests" database and a "user data profiles & profiled" database in Fig. 1, but not any <u>biological information</u> databases. In addition, the alleged link information in Vanska merely contains a service note and its elements A, B, C which have nothing to do with the "link information (e.g., Fig. 4; 15 in Fig. 1 or 101 in Fig. 10) which shows how the plurality of <u>biological information</u> databases are associated by extracting information on how a data entry in a database associates with another data entry in another database from the downloaded data" of the present invention. Moreover, the alleged route table in Vanska does not contain information of permitted routes among the <u>biological information</u> databases, as does the present invention.

Chin was relied upon by the Examiner to compensate for Vanska's deficiencies. However, contrary to the Examiner's assertion, Chin is least silent about a route table containing information of permitted routes among the biological information databases, and it neither teach nor suggests conducting the data search using such a route table.

Applicants contend that the cited references and their combination fail to teach or suggest each and every feature of the present invention as recited in independent claim 8. As such, the

present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.
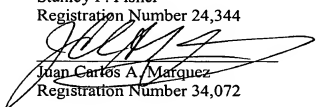
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention and the prior art references upon which the rejections in the Office Action rely, Applicant respectfully contends that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

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